(12) UK Patent Application (19) GB (11) 2 195 254 (13) A

(43) Application published 7 Apr 1988

(21) Application No 8622925

(22) Date of filing 24 Sep 1986

(51) INT CL⁴
A61H 15/00

(52) Domestic classification (Edition J):
A5R EQ

(56) Documents cited
GB 1400473 US 4009710 US 3800785
Note: GB 1400473 and US 3800785 are equivalent;

(58) Field of search
A5R
Selected US specifications from IPC sub-class A61H

(71) Applicants
William James Summerhill Shields,
5 Bedgebury Close, Vinters Park, Maidstone, Kent ME14 5QY.

John Stanley Gayler,
6 Consort Close, Vinters Park, Maidstone, Kent ME14 5NN

(72) Inventors
William James Summerhill Shields
John Stanley Gayler

(74) Agent and/or Address for Service
J. S. Gayler,
6 Consort Close, Maidstone, Kent ME14 5NN

(54) Massage device

(57) A foot massage machine incorporating independently sprung rolls (2) which are driven through a cam (7) and crankshaft (24) system to give a massaging effect which is transmitted to the foot by means of a flexible sheet (22).

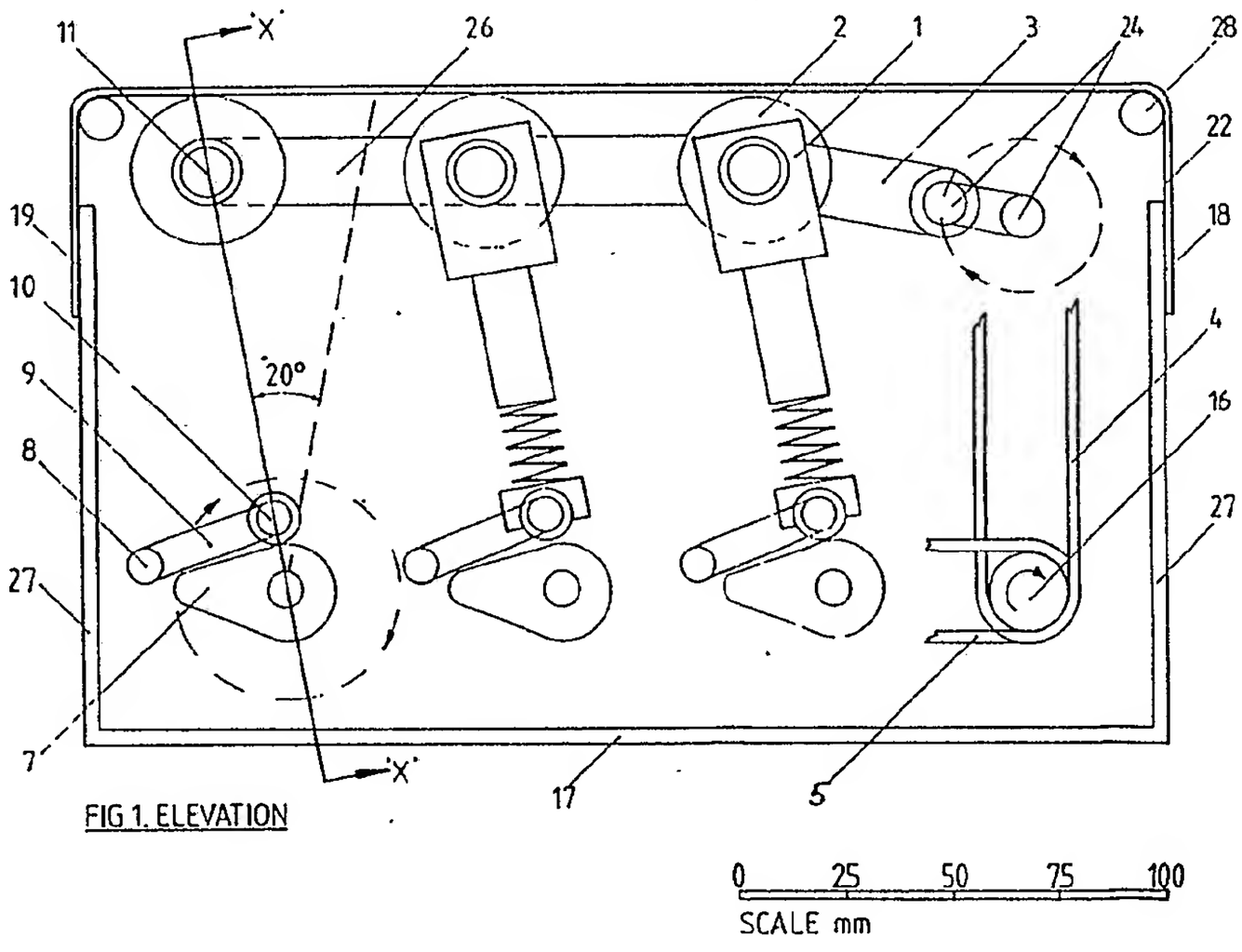
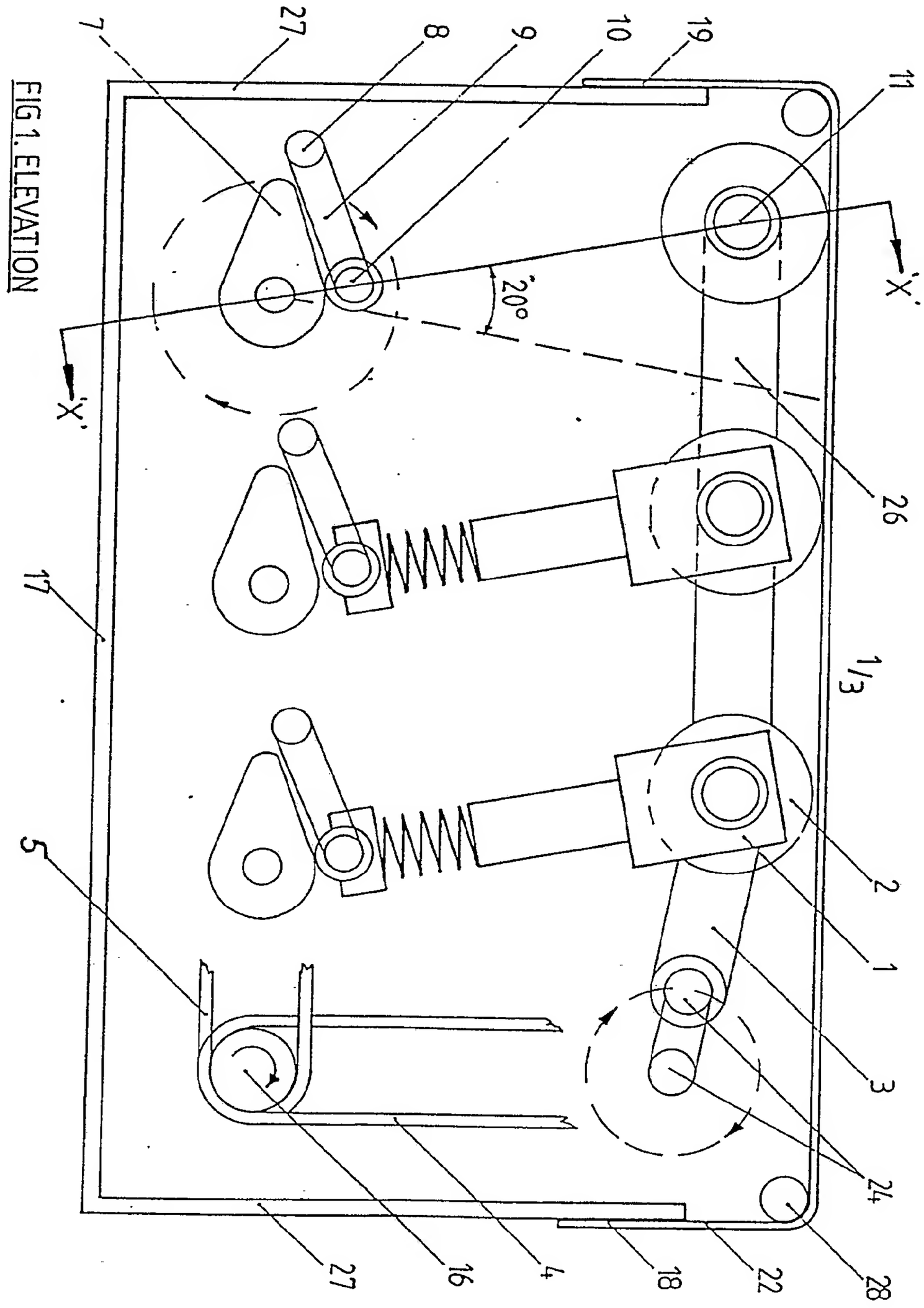


FIG 1. ELEVATION

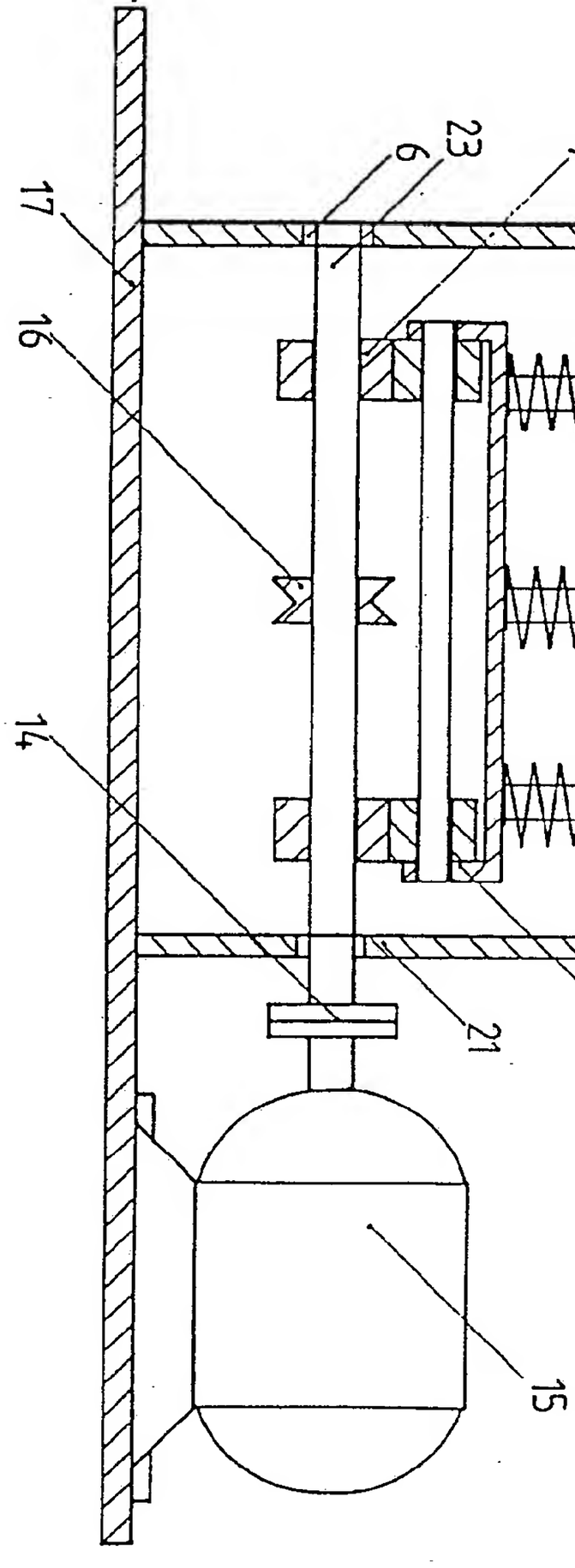
GB 2 195 254 A

2195254



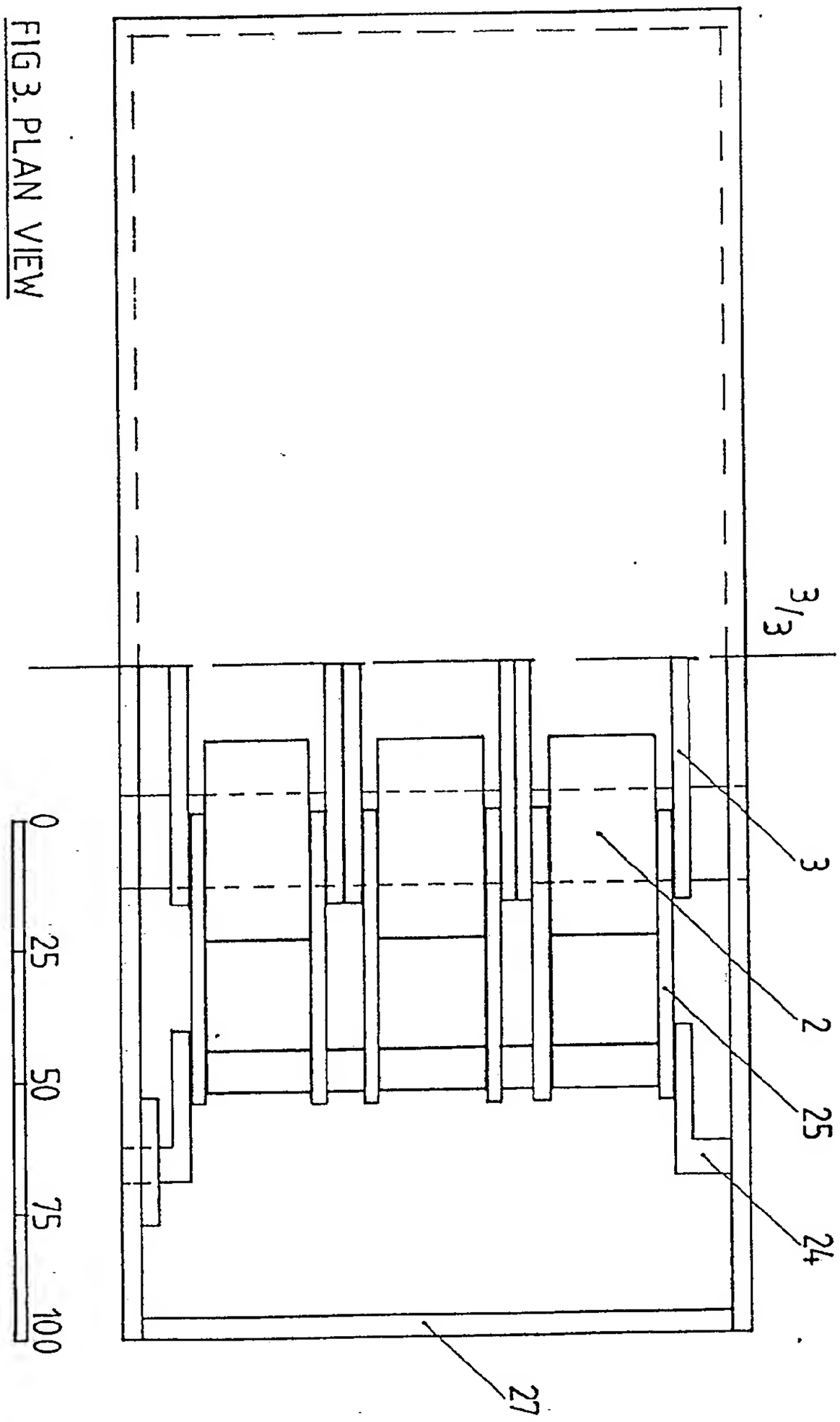
2195254

FIG 2. SECTION 'XX'



2195254

FIG 3. PLAN VIEW



SPECIFICATION

Foot massage machine

This invention relates to a foot massage machine which transmits a massaging action to the foot by a flexible belt.

The invention will now be described by way of example with reference to the accompanying drawings in which–

Figure 1/3 shows the elevation with the front plate (21) removed.

Figure 2/3 shows a sectional view through the fork-ends showing the independant springing of the rolls.

Figure 3/3 shows a half plan view with the flexible belt removed for clarity.

The machine is approximately 250 mm long, 155 mm high and 115 mm deep, with an extended base plate (17) which carries an electric motor (15) on one side and also provides stability on the other side.

The electric motor drives three cam shafts (23) and a crankshaft (24) by means of vee belts (4 & 5) through drive shaft (16).

Each cam shaft carries two cams (7), at each end of the shaft, which lift the saddle (13) on which three indepndantly spring loaded fork-ends (1) are mounted.

The three fork ends cary shaft (11) on which are mounted three rolls (2) giving a total of nine rolls which are kept in contact with the underside of the flexible belt (22) by means of the high compression spring (12).

When the drive shaft (16) is rotated by the electric motor at approximately 60 RPM, the cams (7) lift the spring loaded rolls (2) against the underside of the flexible belt (22).

The flexible belt is spring loaded at one end (18) and fixed at the other end (19). Simultaneously the links (3) and (26) connecting the crankshaft (24) to the fork ends (1) traverse the rolls in a circular motion. Thus, the combined lift and circular motion pressing against the underside of the flexible belt gives a massaging action to the foot. The foot is pressed against the upper side of the flexible belt against the action of the low compression spring (20) the rolls (2) following the contour of the foot.

FOOT MASSAGING MACHINE PARTS LIST

PART NO.	*DESCRIPTION*
1	Fork-End
2	Roll
3	Connecting Link
4	Vee-Belt
5	Vee-Belt
6	Drive Shaft Bush
7	Cam
8	Fixed Pivot
9	Connecting Link
10	Roller
11	Roll Shaft
12	Spring—High Compression
13	Saddle
14	Coupling
15	Motor—electric
16	Driveshaft and Pulley
17	Base-Plate
18	Spring Connection— Flexible Belt
19	Fixed Connection— Flexible Belt
20	Spring—Low Compression
21	Front and Rear Plates
22	Flexible Belt
23	Cam-Shaft
24	Crank-Shaft
25	Connecting Link
26	Connecting Link
27	End Plate
28	Roller—Flexible Belt

CLAIMS

1. The foot massage machine incorporating nine independantly spring loaded rolls which are driven through a cam and crankshaft system giving a unique massaging effect which is transmitted to the foot by a flexible belt.

2. A foot massage machine as claimed in Claim 1 wherein a true massaging effect is achieved as opposed to a simple vibrating effect.

3. A foot massage machine as claimed in Claims 1 and 2 whereas independantly spring loaded rolls follow the contour of the foot when downward pressure is applied.

Published 1988 at The Patent Office, State House, 66/71 High Holborn, London WC1R 4TP. Further copies may be obtained from The Patent Office, Sales Branch, St Mary Cray, Orpington, Kent BR5 3RD. Printed by Burgess & Son (Abingdon) Ltd. Con. 1/87.